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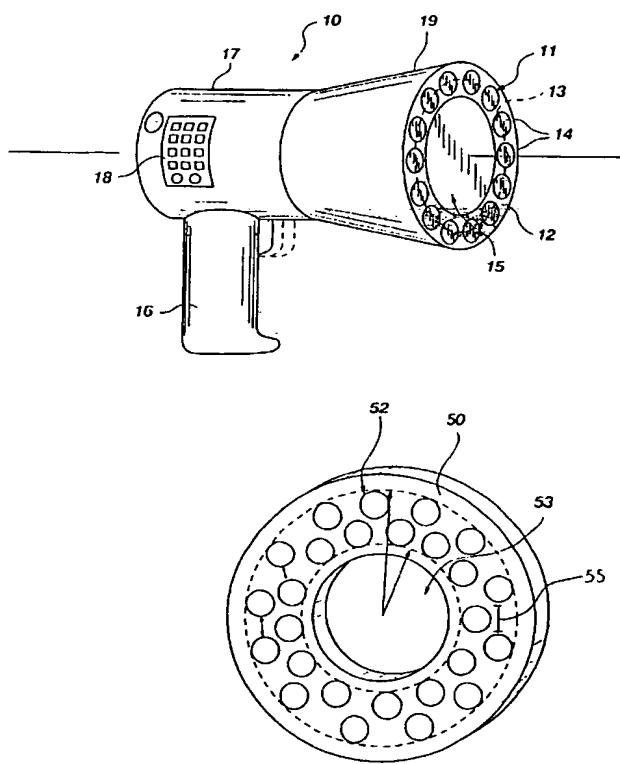
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(54) Title: PARAMETRIC RING EMITTER



(57) Abstract: A sound emitting device (10) for providing at least one new sonic or subsonic frequency as a by-product of emitting a waveform of at least two ultrasonic frequencies whose difference in value corresponds to the desired new sonic or subsonic frequency. The device includes a parametric emitting perimeter or plurality of emitter segments (13) positioned around a central open section (15). This open section (15) is structured with a diagonal width greater than a cross-sectional diagonal of the parametric emitting perimeter. An ultrasonic frequency source (60) and sonic/subsonic frequency generator (62) are coupled together to a modulating circuit (61) for mixing an ultrasonic frequency signal with an electrical signal corresponding to the at least one new sonic or subsonic frequency. The modulator output is coupled to the emitting perimeter (64) which comprises ultrasonic frequency emitting material for propagating the mixed waveform into air for demodulating the waveform to generate the at least one new sonic or subsonic frequency.

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